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PAVING THE WAY

STATE
ROADS
COMMISSION
OF MARYLAND

University of Maryland
College Park Md

J. MILLARD TAWES
Governor of Maryland

Maryland has launched an immense highway expansion program since the reorganization of the State Roads Commission by Governor Tawes in 1959. By modifying existing highway laws, Governor Tawes enabled the Commission to inaugurate needed construction on Maryland's network of Interstate expressways as well as this State's primary and secondary highway systems.

Under the leadership of his administration, the Commission has carried out far-sighted plans outlined by the Governor, and in the future, expects to proceed with new programs to enhance travel facilities in the State.

JOHN B. FUNK
CHAIRMAN OF COMMISSION AND DIRECTOR OF HIGHWAYS
PAUL J. BAILEY
HARLEY P. BRINSFIELD
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To the Members of the General Assembly

Gentlemen:

The State Roads Commission of Maryland is privileged to present to you this Biennial report of its latest accomplishments in the State's road building and maintenance program for 1963-1964.

Also included is a review of the programs achieved during the Administration of Governor Tawes. During this period the State has realized the largest addition to its network of expressways and primary highways than ever before in its history.

In the future, the Commission shall continue to provide Maryland with a road system that will insure safe and comfortable travel for all users.

Respectfully submitted

State Roads Commission of Maryland

JOHN B. FUNK
Chairman of Commission and
Director of Highways

Commission Members

Paul J. Bailey
Harley P. Brinsfield
Lansdale G. Clagett
John J. McMullen
William B. Owings
Leslie H. Evans

DO NOT CIRCULATE

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THE COMMISSION

l J. Bailey, Commissioner
epresenting St Mary's
Charles, Calvert and
Anne Arundel counties

Harley P Brinsfield,
Commissioner representing
the city of
Baltimore

Lansdale G Clagett,
Commissioner representing
Montgomery and
Prince George's counties

John B Funk
Chairman of the
Commission and Director
of Highways.

Leslie H Evans,
Commissioner representing
the nine counties
of the Eastern Shore

John J McMullen,
Commissioner representing
Garrett, Alleghany, Washington,
Frederick and Carroll counties

William B Owings,
Commissioner representing
Baltimore Harford
and Howard counties

The year 1959-first in the Administration of Governor J. Millard Tawes was an historic one for the State Roads Commission.

For it was in that year legislation was passed reorganizing the makeup of the Commission.

Previously the Commission consisted of three men who formed the basic policies for constructing and maintaining the State Highway System. Assigned to carry out these policies was the Chief Engineer, who headed the operational organization of the Commission.

But there was apparant dissatisfaction with this system which provided a rigidly vertical alignment of responsibilities and allowed for little flexibility. At the Governor's request, the General Assembly doubled the Commission's membership and added a seventh position-that of Chairman-Director.

The Legislature provided that each of the Commission members should represent a different geographical area within the State. In this manner, the various groups of counties would be assured that at least one man on the Commission would know their problems intimately and would be their representative when those local problems arose.

The State was divided into the nine counties of the Eastern Shore, the four counties of Southern Maryland, the two Metropolitan Washington counties, the three Metropolitan Baltimore counties, the five Western Maryland counties and Baltimore City.

Terms for the Commission members were fixed by law at four years, and staggered so that no more than three appointments would be made by the Governor in any one year. In addition, the new legislation provided at least two of the Commissioners must belong to the political party opposite that of the Governor.

The most significant change in the structure was combining into one man the positions of Chairman of the Commission and the Director of Highways.

Under this arrangement, coordination was assured between the policy-making body and the operation of the roads department. Flexibility was provided by assimilating technical knowledge into decision-making on the highest level. Unity was promoted by charging one man with representation of the State as a whole.

The Legislation also included a directive for adding administration and planning and programming divisions to the organization.

The basic function of the Commission today remains the same as it ever was—to construct and maintain a State highway system adequate from the standpoints of capacity, service and safety.

However, responsibilities have been delineated to reflect properly the relationship between the Regional Commissioners and the Chairman-Director.

Generally, the Commission has full responsibility respecting policy, the secondary roads system, the toll facilities, the general working conditions and salary recommendations, the use of consulting engineers, and recommendations to the Governor and Legislature concerning Highway improvements and financing.

The Chairman-Director has full responsibility for the Interstate, and State Primary systems, operation of the Administrative, Engineering and Right-of-Way activities, and carrying out the policies of the Commission.

As was intended the duties of each have been blended in day-to-day operation to provide a working harmony which assures the public an efficient operation.

Assisting the Chairman and the Commission is a highly trained legal staff consisting of Joseph D. Buscher, Special Assistant Attorney General, and 15 assistants, who advise on all legal matters and approve all documents for legal form and sufficiency.

Other top level staff include, Albert S. Gordon, Executive Assistant to the Chairman-Director, and Charles R. Pease, Secretary to the Commission.

Programs

At the beginning of Governor Tawes' Administration, the Commission was proceeding with road construction within the framework of a program enacted in 1953 to cover a 12-year period. It soon became evident, however, that the critical need for completion of the primary road network was seriously slowed by the provisions in this program.

Accordingly, the Commission requested the enactment of legislation in 1960 which accelerated construction of certain primary roads. It became known as the "go" program and was scheduled to cover the period of time between July 1, 1960 and June 30, 1965.

Under this program an estimated $8 million annually was available for construction of other roads in the State. Elected officials of each county furnished the Commission with a priority for roads in their area.

While this program was progressing, however, Maryland's population spiraled and the State became the second fastest growing on the Atlantic Seaboard.

Since 12-year program was nearing an end, the Legislative Council began hearings with the Commission directed toward a continuation of moderization of Maryland's highways.

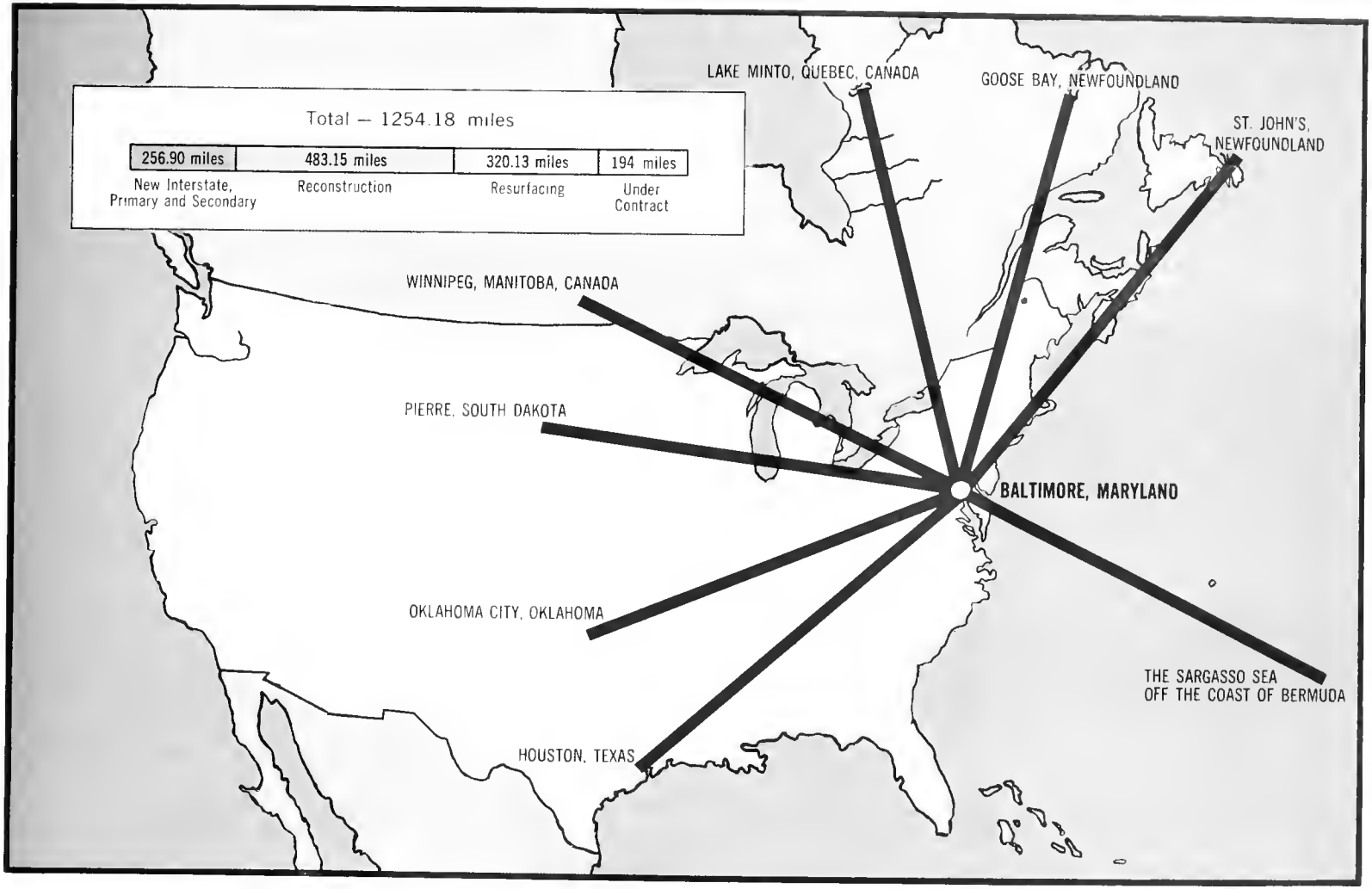
As a result, statutory authority authorized a continuing program for the spending of some $70 million per year including Federal Aid. The rest was financed by a one cent rise in the gasoline tax and a one percent increase in the motor vehicle titling tax, which netted the State about $20 million annually.

The new program was based on a study of road needs for the next 20 years which was made in 1962. From this study, a definite outline of projects was included for six years, ending in 1970.

The Legislation provided for execution of the six-year program in three consecutive increments of two years. Each is adopted following review and approval by the SRC and elected officials of each county.

Since the Commission had no authority to act on the first segment until local approval was obtained there was a time lag in moving the projects into the construction stage. But every effort is being made to get a sizeable portion of it underway in the 1961 construction season with the balance to be under contract before June 30, 1966.

These conditions should not re-occur with the next two year increment because they must be approved well in advance.



MAP OF PROGRESS

From January 1959 to January 1965, the State Roads Commission completed 256.90 miles of new Interate, and primary and secondary roads. In addition, 483.15 miles of reconstruction and 320.13 miles of resurcing were accomplished, for a total of 1,060.18 miles.

Also, contracts have been awarded for work on an additional 194 miles.

When these are completed, the SRC will have provided 1,254 miles of road for motorists since 1959.

Using Baltimore as a starting point and theoretically extending in a straight line the number of miles ferred to above, this map shows seven cities and an area in the Atlantic Ocean, each a distance of approxiately 1,200 miles from Baltimore, which a Maryland motorist could travel to, using this "hypothetical highway."

Using these figures, the average housewife can do the family shopping approximately 1,300 times, or enough trips to keep the home supplied with edibles for several years, over the total miles of road made available and improved by the SRC during the Tawes administration. . . . According to statistics compiled by "Modern Supermarket Operation", and the "Baltimore Metropolitan Area Transit Study", prepared by Wilbur Smith, the average supermarket shopper, (60-90%), travels a mile or less to shop.

THE ROADS STAFF

No business on earth can expect to operate efficiently without a properly organized staff.

Running the State's road system is big business. It involves over 5,000 miles of road worth over $1 billion. And the Organization Plan under which the Commission's staff operates is designed to provide the control and flexibility required to do the job.

Under the general plan, the organization provides for six major partitions of the staff. These include the Administrative, Engineering, Finance and Accounting, Planning and Programming, Right-of-Way, and Toll Facilities Divisions.

This basic structure has proved its effectiveness in the application of modern principles of organization. It permits the development of specialized skills and aid in providing the Commission with wide experience in the various activities of the staff.

In general, the Chiefs of the Divisions act as direct advisors to the Commission, recommending adoption of policies and adopting specific procedures within those policies which are approved.

Each division is further separated into Bureaus, sections and units to provide firm control of each function carried out by the staff.

Following is a brief summary of the responsibilities assigned to each Division:

Administration

Application of management plan in logical, clearly defined fashion is necessary in order for the Commission's staff to operate as an integral unit. The Division is charged with managing all office, data processing and communication services. In addition it provides support and direction to the public information bureau.

Under the leadership of Walter E. Woodford Jr., the Division's responsibility includes enforcement of outdoor advertising activities, negotiation of agreements with consulting engineers and development of defense and other areas of emergency planning.

Finance and Accounting

One of the ablest men on the Commission staff is Carl L. Wannen, Comptroller Appointed by the Governor, Mr. Wannen is responsible for the preparation of financial and statistical reports on the revenues and expenditures of the Commission.

Mr. Wannen's Division also programs and supervises both State and County Construction Bond issues, and supervises certain phases of financing and accounting with respect to the toll facilities operated by the Commission.

Engineering

This Division is the principal operating and production division of the Commission. Under the direction of Chief Engineer David H. Fisher, the Division is responsible for all survey, location design, construction, maintenance, physical research and traffic control activities.

For operational purposes, the State is divided into seven engineering districts. Each District Engineer reports directly to Mr. Fisher and is responsible for all construction and maintenance with his District.

The district engineers are:

- C. Albert Skirven - Somerset, Worcester, Dorchester, Wicomico counties.
- C. Roland Sharretts - Cecil, Kent, Queene Annes, Caroline, Talbot counties.
- W.L. Shook - Montgomery, Prince Georges counties.
- Enoch C. Chaney - Baltimore, Harford counties.
- M.C. Thompson, Jr. - Anne Arundel, Calvert, Charles, St. Marys counties.
- John D. Bushby - Garrett, Allegany, Washington counties.
- Thomas G. Mohler - Frederick, Carroll, Howard counties.

Right-of-Way

This division is responsible for the acquisition of all land needed for road building in Maryland. It provided the Engineering Division with estimates of right-of-way costs.

Division Chief Leroy C. Moser is also charged with rental and leasing land acquired in the interval between right-of-way purchase and construction. His Division also supervises the disposal of buildings and excess real estate.

The Division is organized into four bureaus, including Right-of-Way Administration, Appraisal Review, Field Operations and Utility Right-of-Way Acquisition.

Right-of-Way also has field personnel located in each of the seven Districts who work directly with District Engineers and are responsible for acquisition of necessary property within their counties.

Toll Facilities

Maryland's four toll facilities, under the leadership of Division Chief Louis J. O'Donnell, represent an investment of nearly $200 million. They include the Baltimore Harbor Tunnel, the Chesapeake Bay Bridge, and the Potomac and Susquehanna River Bridges.

The John F. Kennedy Memorial Highway was built under a separate bonding issue and has been placed under the administration of Thomas N. Kay, a former member of the Commission.

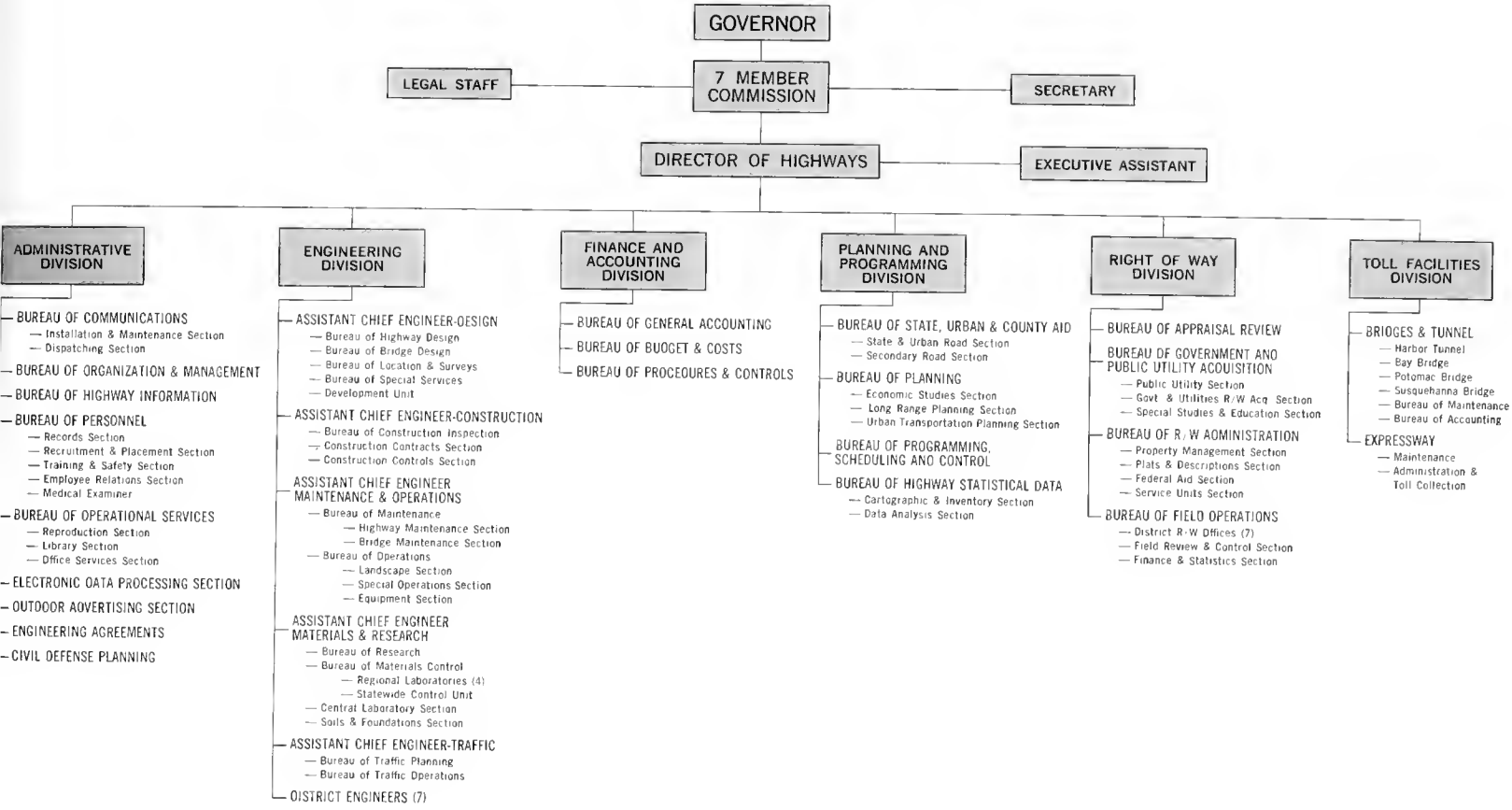
Planning and Programming

This division is responsible for determining where roads should be constructed in the future. Under the leadership of Walter J. Addison, division employees are engaged in making economic studies to determine the need for additional facilities in each part of Maryland.

Mr. Addison and his staff recommend a comprehensive plan to the Commission to give the motoring public roads that serve the most traffic in the most efficient manner.

One additional service provided by the Division is direct liason with municipalities, especially Baltimore City. Under the supervision of Roland E. Jones, Chief of the Bureau of Urban and County Aid, urban areas are given advice and information in the efficient use of federal funds available for local distribution.

ORGANIZATION CHART OF STATE ROADS COMMISSION OF MARYLAND



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Through these and other programs, the SRC will continue to provide Maryland's motorists with the safest, most modern roads available.

THE INTERSTATE SYSTEM

Of an original 354 miles of Interstate roads planned in Maryland 24.4 miles were allocated to Baltimore City, or only 6.9 per cent of the total mileage. However, Baltimore's funds for their portion are more than 40 per cent of the total $834 millions to be spent in the State.

At present, the SRC has opened to traffic 240 miles of their portion, or more than 71 per cent of the State's total. Baltimore City has opened 22.5 per cent, or 5.5 miles to date. Since the Commission has no authority to build roads within the city's limits, Baltimore must accelerate their building program in order to take advantage of the Federal funds involved. Cut off date for the entire program is 1972.

With an increase in Baltimore's construction program and the completion of the Commission's remaining portions, Maryland will be assured of obtaining Interstate Roads at the lowest possible cost to its taxpayers.

Conceived by the Federal Government and authorized by Federal legislation in 1956, the Interstate system is an integrated network making the country's metropolitan and industrial areas from coast to coast and from border to border.

Comprising one per cent of the total United States road mileage and scheduled for completion in 1972, the Interstate system will carry more than 20 per cent of the nation's traffic.

The construction costs of this gigantic undertaking are being financed primarily by the Federal Government, which will contribute approximately 90 per cent of the cost of the Interstate system, leaving the individual States to absorb the remaining 10 per cent.

Cost for the 41,000 mile interlinking Interstate expressway complex when completed, will total slightly more than $41 billion.

The following routes indicate Maryland's portion of the Interstate system and the present stage of development.

- Interstate-83-Opened to traffic (The Baltimore-Harrisburg Expressway)-with the exception of the lower leg.
- Interstate-270-Opened to traffic. This highway in Montgomery County connects I-70S with the Capital Beltway.
- Interstate 295-Opened to traffic. This highway in Prince Georges County connects the Capital Beltway with Kenilworth Avenue.
- Interstate-495-(Capital Beltway)-Opened to traffic in August of 1964.
- Interstate-695-(Baltimore Beltway). Opened to traffic in July of 1962.
  Two traffic lanes and a pull lane for trucks, from Wilkens Ave. to U. S. Route 40 West, have been added to this original four lane expressway.
- Interstate-95 (The John F. Kennedy Memorial Highway)-Opened to traffic from the Delaware line to the Baltimore Harbor Tunnel.

During the next two year period, 22 miles of I-95 from the Baltimore Beltway to the Capital Beltway is scheduled for construction. Work has already begun in Howard County, with several sections soon to follow in Prince Georges county.

- Interstate-81-(Pennsylvania to West Virginia via Hagerstown). At the present time, from the Pennsylvania line to Route 40 is opened to traffic, and the section from Route 40 to the Western Maryland Railroad is complete. The Potomac River Bridge, the Nursery Road Bridge, and the U. S. Route 11 and I-81 interchange are under construction. The leg from the Western Maryland Railroad to U. S. 11 has been advertised for construction and work will begin on it in 1965.
- Interstate-70-(Prince Frederick to Pennsylvania, near Hancock). Construction on I-70 from the Pennsylvania line to east of Hancock, has already started, and is scheduled to be completed later this year. The section from east of Hancock to Millstone has been opened to traffic since 1960, and the Commission plans to open the section from Millstone to Conococheague Creek by 1966. The Conococheague Creek to Route 40 east of Hagerstown is scheduled for advertising for receipt of bids later in this year.

Scheduling calls for the portion of I-70 from the Pennsylvania line to Route 40 east of Hancock to be opened to traffic by December of 1967. Advertising for receipt of construction bids for the section between Hagerstown and Frederick including the interchange outside of Frederick which will unite I-70, I-70N, I-70S is at present in the design stage and should be opened to traffic by November of 1968.

- Interstate-70S-Opened to traffic from Frederick to the Capital Beltway.
- Interstate-70N (Frederick to Baltimore). From to Marriottsville Road, will be upgraded to Interstate standards.

From the Patapsco River to the Baltimore Beltway including the River Bridge which is already under construction is due to be opened to traffic in 1966.

All together, seven counties in Maryland will participate in the Interstate Highway construction program in the next two year period. These counties include Anne Arundel, Baltimore, Frederick, Howard, Montgomery, Prince Georges and Washington.

EXPANDING THE BELT

A SOLUTION TO BALTIMORE'S GROWTH NEEDS

Looking north on the Baltimore Beltway from the Frederick Avenue overpass, this view shows how the three-lane extension of the Beltway in 1964 has expanded the southbound portion by one lane, and added a third traffic lane and a fourth truck-shoulder lane to accommodate northbound vehicles.

Interstate 70N, which will stretch from the Baltimore City line to Hancock, Maryland, is shown here, spanning the Beltway near Exit 17

One of the most dependable yardsticks of a city's growth is the use which its major highways receive.

Two and a half years ago, the Baltimore Beltway bared its concrete muscles to traffic. The calendar year 1963 showed that 13.5 million vehicles used the 32.8-mile freeway in 1964 the figure jumped by more than one million.

To accommodate the expected continued increase in motorists using the belt, the State Roads Commission began construction of additional lanes in April of 1964. Extending from U.S. Route 40 to Wilkins Ave., one lane was added in the North and Southbound directions. One truck lane was also added.

In the near future, the Beltway will be expanded to six lanes of traffic throughout its entire length, except for the section between the Jones Falls Expressway and the Harrisburg Expressway which already has eight lanes.

Ever conscious of the greater need for road safety the Commission is moving ahead steadily with the award of contracts for lighting, permanent signing and landscaping.

Baltimore is the titan of Maryland's industry. Its shipping complex injects in excess of 1.1 billion dollars every year in foreign trade value into the city and the State's economy. Baltimore County hosts the largest freeworld steel plant at Sparrows Point. The largest deep water industrial area with great growth potential is found at Marley Neck in Anne Arundel County.

All of these assets, with their staggering potential for growth must be serviced by a modern, high-speed freeway network.

Making the port and its facilities more valuable can be accomplished by extending the existing Beltway from its present terminus at Ritchie Highway to join a future second harbor crossing.

Already under construction is an extension of the Beltway from the Pulaski Highway to Merritt Boulevard in Baltimore County.

Known as the Patapsco Neck Expressway it is planned all the way to Sparrows Point in the six-year program which was approved by the General Assembly in the 1964 session.

Industry expands where facilities exist for the rapid transfer of raw materials and finished products. It also locates where there is easy access to necessary labor forces.

Already it is estimated that the present area population of 1.5 million will double by 1980.

The Commission will continue to develop plans for additional road concepts which will meet the myriad needs of Baltimore and its environs, and provide for constant improvement of its present system so that Maryland can become an even greater industrial and residential haven.

CIRCLING THE NATION'S CAPITOL

Since its opening on August 17, 1964, the Capital Beltway has served five million motorists. Maryland's newest metropolitan belt has cost some $105 million to date and contracts continue to be awarded for signing, lighting and landscaping.

The Beltway is the major artery for Maryland residents employed in the District of Columbia, Prince Georges and Montgomery Counties and Virginia. The road runs for 43 miles in Maryland and for 23 in Virginia.

Many tourists visiting Washington have had their path easied by construction of this freeway. Also served are residents of the District who utilize the new freeway as an easy access to the recreational and historic areas of the Eastern Shore and Southern Maryland counties.

Coastal trucking transportation has been greatly facilitated by this addition, enabling rapid distribution of needed products to the metropolitan complexes they service along the Atlantic Coast.

When initially planned, the Capital Beltway was not scheduled for construction until after 1965. Under the present Commission and its Chairman-Director, John B. Funk, the road was opened to traffic far ahead of schedule.

The need for this modern, six-lane freeway is readily apparent when one considers the growth figures for the State, as compared with those for the nation.

Geographically, Maryland is small. It ranks only 42nd in land area.

But it stands 21st in population. From 1950 to 1960, this population increased 32 percent, nearly twice the national average. In fact Maryland is now the second fastest growing state on the Atlantic Seaboard.

It is an integral part of the "strip city" that will stretch from Boston to Richmond within the next two decades. This megalopolis will house 20 percent of the nation's population and contain almost one-third of the nation's manufacturing.

The area will also generate one fifth of the nation's retail trade and will contribute 27 percent of all federal income tax receipts.

By the year 1980, Maryland will have experienced unparalleled growth.

Motor vehicle registrations in the State are estimated to increase 69 percent, or by almost one million motorists. The population of the Washington Metropolitan area is estimated to grow to 6 million.

In fact the entire Washington-Baltimore complex will reach a total population of some 10 million by the year 2000.

Suburbs are becoming cities in themselves and this expansion brings the need for new expressways to handle the traffic which is constantly on the increase, threatening to clog our streets. In this picture, the Capital Beltway will loom large as a monument to a farsighted State Government.

Nor will this be enough. The Commission is cognizant of the eventual need for an outer beltway around Washington to serve the needs of the expanding economy, where commerce will increase on a nationwide scale by three percent per annum and where, by 1980 the motoring public will drive 31 billion miles each year.

The State Roads Commission is constantly planning for the highway future of Maryland bearing in mind the challenges of population and vehicular growth which the next few years will bring.

All lighting, signing and marking on Interstate roads must conform to standards set by the Bureau of Public Roads. The Capitol Beltway is an example of how the SRC employs these aids for greater comfort and safety on Maryland's roads.

Lighting on the Capitol Beltway clearly defines the road surface and exit instructions.

THE KENNEDY MEMORIAL HIGHWAY

Imagine eight million vehicles travelling over 319 million road miles and recording no fatal accidents on that road.

Imagine being able to drive from New York to Washington without a traffic light.

This dream has been realized with the opening of the John F. Kennedy Memorial Highway, our Country's most recent and most modern toll road.

The road incorporates all of the most modern concepts in highway design.

This dual four lane transportation triumph is a monument to many things; to the planners who predicted its need 14 years ago, and the cooperation of local legislators who advanced its cause in Maryland; to the President for whom it is named; to the administrators and engineers who participated in the development of construction plans, and to the multitude of human labor which completed this 42 mile marvel in 18 months.

By relieving traffic from Route 40, the Highway has reduced fatal accidents on that road from 20 a year to 16 for the 1963-64 period.

The Memorial Highway carries an average of 17,000 vehicles a day and has reduced almost one-half hours' driving time from the Harbor Tunnel to Delaware.

Savings in time and safety provided by limited accesses and ease of driving are some of the reasons that 7.61 million vehicles were logged through the toll facility during the first 14 months.

The interchanges on the expressway are:

- The Baltimore Beltway.
- White Marsh Boulevard
- Maryland Route 24, connecting with Edgewood and Belair.
- Maryland Route 22, connecting with Aberdeen.
- Maryland Route 155, connecting with Havre de Grace.
- Maryland Route 222, connecting with Perryville.
- Maryland Route 272, connecting with North East.
- Maryland Route 279, connecting with Elkton.

The exits are numbered two through nine because of an additional interchange below the Baltimore Beltway planned by the SRC at a future date.

Motorists travelling the six-mile section between the Baltimore City line and White Marsh Boulevard pay no toll.

Financing of the Expressway was handled through a $74 million bond, issued in February of 1962.

The highway has been constructed with two 12 foot traffic lanes in each direction, and enough width has been allowed to permit eventual expansion to six lanes. The Susquehanna Bridge was constructed with six lanes, four of which are now in use.

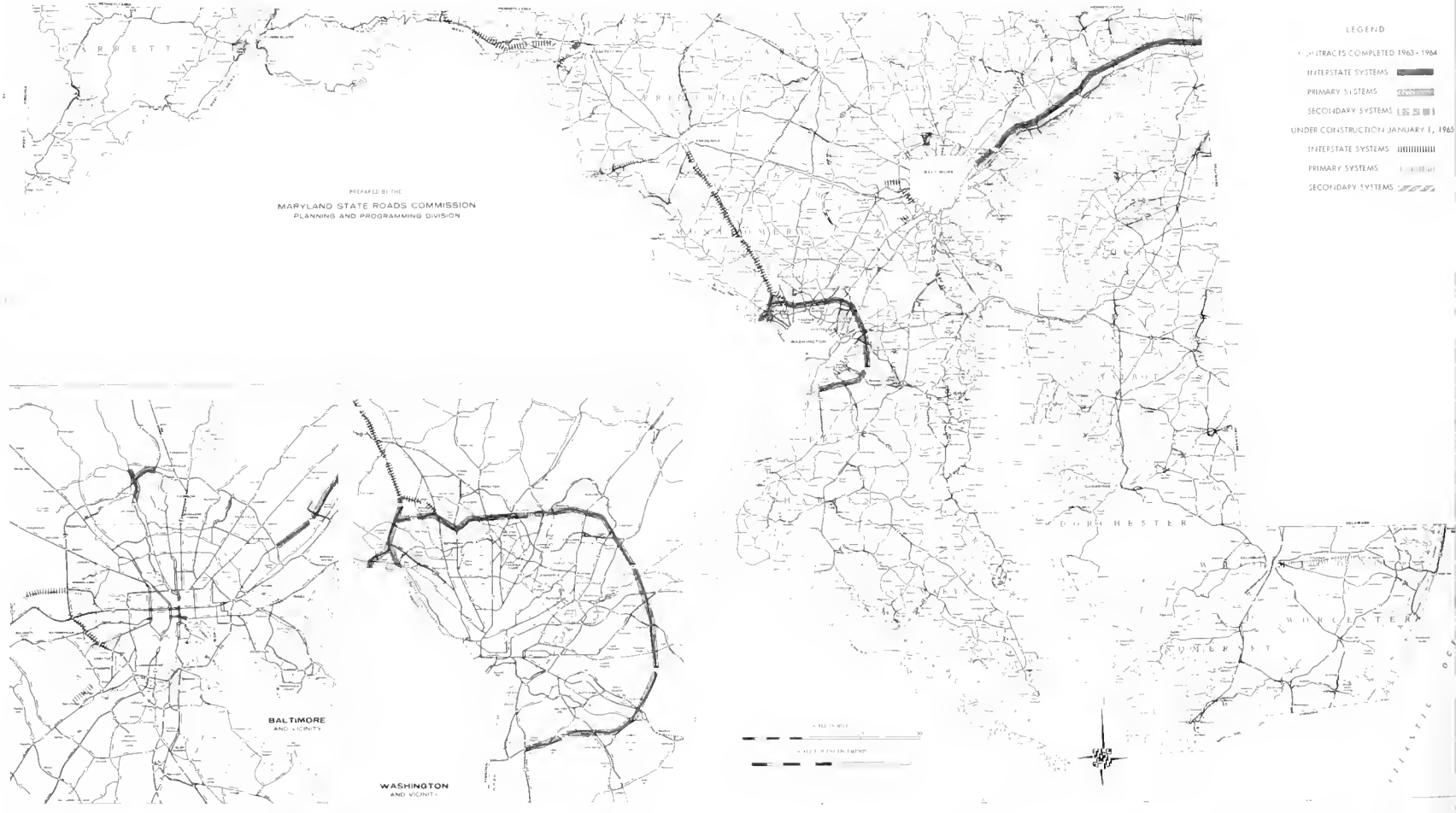
The motorist's comfort has not been neglected either. The highway has a service area containing two service stations and a restaurant known as the Maryland House.

Of colonial brick design, the restaurant offers 24-hour service with a seating capacity of 295 places. Tourists and natives alike repair to its doors to gourmandise examples of Maryland's world famous cuisine.

Construction of the John F. Kennedy Memorial Expressway between Baltimore and Washington has started, and when it is opened to traffic, will add another strong link to Maryland's expanding road chain.

—Bridging the Susquehanna — The John F. Kennedy Memorial Expressway is the major North-South corridor linking Maryland with the rest of the Middle Atlantic seaboard states.

SERVICING THE ENTIRE STATE



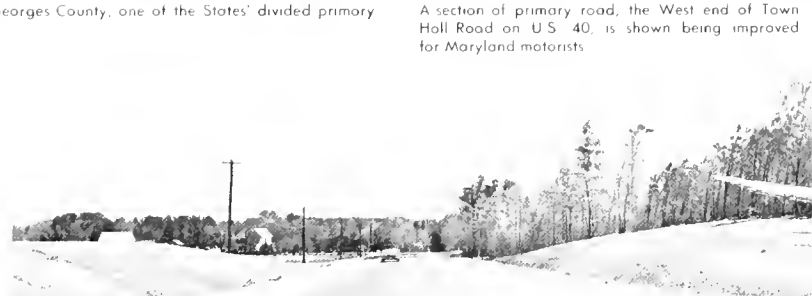
. . . PRIMARY and SECONDARY

hown here is a part of Maryland Rt 26 a secondary road in Carroll County

This is a section of U S 301 in Prince Georges County, one of the States' divided primary highways

A section of primary road, the West end of Town Hall Road on U S 40, is shown being improved for Maryland motorists

This shows a primary portion of U S 40 on the West side of Martin's Mountain in Alleghony County



This portion of Maryland Rt 12 is a secondary road connecting Girdletree and Stockton in Worchester County

This crew is improving a secondary road for greater safety and comfort to Maryland motorists

Overlooking Middletown Valley in Gambrill's State Park near Frederick, this site is one of many which becomes to tourists travelling the scenic route in Maryland's section of Appalachia

FUTURE PROGRAMS

Road construction programs depend in many cases upon the availability of funds from new sources. It is a fact that a large part of Maryland's great progress in highway building has resulted from large amounts of federal funds provided on a matching basis to all the States.

Depending on the program under which a given road is assigned, federal money may pay between 50 per cent and 90 per cent of the total cost.

Up to now all funds, whether federal or state, have come directly from the Highway user.

It is the motorists who now pays 100 per cent of the cost of his highways in Maryland through motor vehicle taxes, under the theory that only those who use the highways should pay for them.

In recent months, however, a new hypothesis has gained wide spread acceptance - one which states that good highways benefit all the people in the area they serve by providing much needed access for economic, social and recreational development.

This theory has been accepted by President Johnson who has pushed two new programs which will, if approved by Congress, provide additional money from Federal General funds for new roads in our State.

These programs include plans for the renovation of Appalachia and the provision of better access to our scenic and historic areas.

Appalachia

The Appalachian program is already moving smoothly along through the Legislative process.

In Maryland it may provide additional funds for reconstruction of Route 40 from Hancock through Garrett County. In 1956, the State Roads Commission proposed to the Federal Bureau of Public Roads that this project be included in the Interstate program. It was Federally determined however, to turn interstate 70 north to the Pennsylvania Turnpike at Hancock. Since then, improvement of this vital link to the Westernmost part of Maryland has continued in the State program.

The proposal also calls for construction of a road in a North-South direction through Garrett County. This road would complement work which is already underway on Route 219.

Appalachian road-building funds will be allocated on a matching basis.

SCENIC HIGHWAYS

Under an executive order from President Johnson, the National Recreation Advisory Council has gathered recommendations from Maryland for roads which will serve our abundant natural recreational resources.

The State Roads Commission has submitted proposals for over 500 miles of additional highway to form the basis of legislation which will be submitted to Congress as an Administration measure.

One significant recommendation is a proposal for a "scenic horseshoe" from Annapolis to Washington.

This 200-mile route would begin at our State Capital and travel south along the Chesapeake Bay, passing the Calvert Cliffs, and crossing the Patuxent River at Solomons. The road would then follow the Potomac River to Washington.

Although no percentage formula for matching funds has yet been decided upon, it is expected that Congress will approve construction on a basis similar to that of Appalachia.

Included as one of the attractions on the Scenic Horseshoe, the Calvert Cliffs in Southern Maryland abound with natural beauty and archaeological artifacts.

MANAGING YOUR HIGHWAYS

Dovid H. Fisher, Chief Engineer.

Carl L. Wonnon, Comptroller.

Good highway management is essential to all phases of planning, design, construction and maintenance of our modern road system.

The State Roads Commission is presently responsible for over 5,000 miles of highway worth more than one hillion dollars.

In addition, our State is entering a new era in highway transportation. This era has new goals, and involves the expenditure of substantial sums of public funds. It demands a high degree of administrative and operating efficiency, vigilant control and adequate procedures.

To meet the challenge, the Commission in 1962, hired a nationally known firm in the management consulting field.

The consultant made a complete study of the organization and administration of the road picture, returning a 130-page report.

This report has formed the basis for the introduction of many new management techniques which have resulted in vast improvements.

In the Personnel field, for example, the Commission adopted a seven-point program covering personnel policy, reorganization of the Commission's Bureau of Personnel, improved liasion with the State Commissioner of Personnel, recruitment, training, classification and professional recognition.

This program has included the centralization of responsibility for personnel matters, to provide positive direction and guidance.

As part of the Administrative Division, the Personnel office is in the process of reorganization and operates as an effective supplement to the State Merit system.

Also, recruiting efforts have been intensified and the Commission has improved record keeping procedures utilizing modern filing systems and data processing and now has an up-to-date file on every employee.

Extension of existing training programs and the addition of others has been necessary to assure that personnel are kept up-to-date in new procedures.

The management study was responsible for the separation of the engineering and technical staff into separate classifications and provision has been made for recognition of Commission engineers as qualified professionals who work within a framework which provides adequate career ladder of advancement.

In the Right-of-Way field, adoption of the "one-price offer" system has insured each property owner that he will receive fair market value for any property which must be taken for road construction.

The term "one-price" does not mean, however, that the State Roads Commission is unbending or arbitrary in paying for land required for the highway system.

Expert right-of-way personnel carefully examine each piece of property from all viewpoints before determining how much it is worth. For every appraisal over $10,000, an outside appraiser is called upon to give his own, separate estimate. For each parcel valued by the Commission staff at more than $25,000, two outside appraisals are obtained.

Property owners are then given an opportunity of examining each detail which resulted in the offer presented and the Right-of-Way division's Bureau of Appraisal Review stands by to receive any evidence showing increased value. In addition each county has a Board of Property Review, consisting of an attorney, an engineer and one other person which can review appraisals.

Staff experts are thoroughly trained for their jobs in the division. Training procedures have advanced to the point that the division now boasts one of the best right-of-way courses in the country.

Another noteworthy achievement in the management field has been the realignment of the Engineering Division on a more functional basis to provide a greater degree of supervision and delegation of authority.

One direct result of this reorganization has been the establishment of regional laboratories at Easton and Hancock. From a management viewpoint, these labs prove their worth by providing fast and efficient materials testing reports in the areas where the road is being constructed.

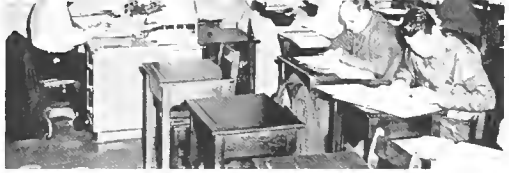
In central Maryland, the same service is conducted by the main lab at Brooklandville.

Naturally, there is still room for improvement. But research is continuing daily on methods which will improve the quality of management. Some of these projects include:

- Research on improving methods of pre-qualifying Contractors and the establishment of uniform accounting procedures. These studies are being conducted by joint committees of the American Association of State Highway Officials of which Walter E. Woodford, Chief of Administrative Division of the SRC and Carl L. Wannen, SRC Comptroller are members.
- Research into the application of statistical methods to quality control, which will result ultimately in the establishment of a procedural manual for materials testing.
- Compilation of a policy manual outlining the duties and responsibilities of the Commission and each executive down to the Bureau level.

Division Chiefs, left to right - Wolter J. Addison, Planning and Programming - LeRoy C. Moser, Right of Way - Louis J. O'Donnell, Toll Facilities - Wolter E. Woodford, Jr., Administration

HIRE THE BEST—TRAIN THEM WELL



These are applicants being tested for positions in the State Roads Commission.

No organization can remain efficient for long unless it injects new, young blood into its system.

This is especially true of the State Roads Commission, which must constantly keep abreast of the vigorous construction programs demanded by the public.

To meet these needs, the Commission's staff constantly seeks out new talent not only from our native State, but from surrounding areas as well.

Since 1959, the recruiting program has concentrated primarily on the young college man about to receive his engineering degree.

SRC recruiters seek out these leaders of tomorrow at the universities where they are studying. The benefits of a career in State service are explained in detail and the men are encouraged to join in the exhilaration felt by a modern roads engineer on viewing a job well done.

Of course, competition is keen. Other States and the Federal Bureau of Public Roads are also out to take their share.

But Maryland does not take a back seat. The State can offer fairly competitive starting salaries and professional standing.

In addition, the student choosing Maryland can guarantee that he will be placed on the eligibility list without the necessity for taking an examination, as long as he graduates from his college or accredited engineering school with his engineering degree in hand.

Another area on which recruiters dwell is in the Right-of-Way Division. The Commission requires that all Right-of-Way agents have a college diploma.

This is because the field of land appraisal is quickly becoming a profession in itself today. Persons hired out of college are also required to take a "college career test" given by the Commissioner of Personnel to determine whether their knowledge of land acquisition and value is sufficient to warrant the high trust placed in an agent.

Practically all the Commission's 3665 employees are under the protection of the State Merit System, which provides for scheduled increases in salary as well as periodic promotion on a competitive basis.

Occasionally, however, services are needed requiring talents which are not available under the system's job titles. In these instances the Commission contracts with someone outside the merit system for the particular job needed. This occurs only rarely.

In-service Training

Hiring a man is only the beginning. He must be properly trained for the specialty to which he will be assigned.

But training is more difficult to achieve in today's world where the keyword is "flexibility." For an employee must have a broad background in all phases of roadbuilding if he is to progress eventually to a position of responsibility.

Thus continual training in one's own and related fields allows the Commission to get the most out of its work force.

In the Right-of-Way Division, for example, there is a training course which takes nearly three years to complete. Agents are taken through a regular series of lessons and tests leading to eventual advancement.

In addition, all agents are required by the Commission to complete appraisal courses at night given by an accredited college.

During the past five years, the Commission, with the cooperation of the University of Maryland has conducted in-service highway training courses each year at SRC headquarters in Baltimore.

This course brings the student up to date on Mathematics, Road Design and Surveying. Completion takes three years. Formerly the Commission reimbursed the student for the cost of tuition. Now, the SRC pays the full sum initially.

Although the course is not accredited, those who finish are granted one extra year's experience on the pay scale.

Another training program offered yearly is the four-day construction conference required for all construction and materials field personnel.

Held at the main laboratory in Brooklandville, the conference brings those attending up to date on the latest testing methods.

The course is actually a workshop, in which students are taught how to run tests, how to gauge results and how to evaluate them.

Eight seminars of 60 students each are planned this year. Baltimore City and several counties will also send personnel to be trained, at no extra expense to the SRC.

Each new graduate who joins the Commission staff also undertakes a training course during which he is assigned on a rotating basis to each of the various departments, providing the SRC with versatility in an individual and flexibility in manpower utilization.

In this manner he gains a knowledge of the whole picture and is better oriented when he is finally called upon to choose his specialty.

Even after a man is assigned, he is often called upon to rotate within his own sphere. This is especially true at the laboratory where rotation programs are available to allow personnel more flexibility in their work.

Of course the ultimate object is to have every employee in a division or bureau trained for every other position. The training programs of the Commission are expanding in size and length. The day is not far off when the so-called fixed "options" of work, where a man is fit for one job only, will be eliminated.

A group of SRC "students" are learning how to conduct tests and evaluate their results, at the main laboratory in Brooklandville.

"FAST ANALYSIS WITH MODERN METHODS"

Electronic Data Processing methods were introduced into the State Roads Commission activities in February 1957, for the purpose of overcoming a shortage of engineering personnel which existed on a national scale.

The first computer was located in the Bureau of Road Design because initially its potential was recognized only as a tool by which the determination of earthwork quantities could be expedited. Its value in other operations soon became apparent, however, and in 1960 the Electronic Data Processing section was established under the Administrative Division as a service agency to all Commission departmental components.

Since the initial installation in 1957, a great many technical advances have been made in electronic computers. The Commission has up-dated its equipment configurations to take full advantage of these developments compatible with its application needs.

Under the direct supervision of Mr. Phillip R. Miller, the Electronic Data Processing section is sufficiently staffed with engineering and mathematical personnel to assure the determination of the feasibility for proposed applications, the development of procedures to initiate the application, and the development of the computer program to accurately perform the processing within desired controls. All programs are thoroughly tested and de-bugged before they are made operational on a production basis.

A total of 143 programs have been developed, written, revised or modified for applications in the fields of administration, accounting, traffic and planning, materials and research, highway and bridge design, right-of-way, construction and hydraulics.

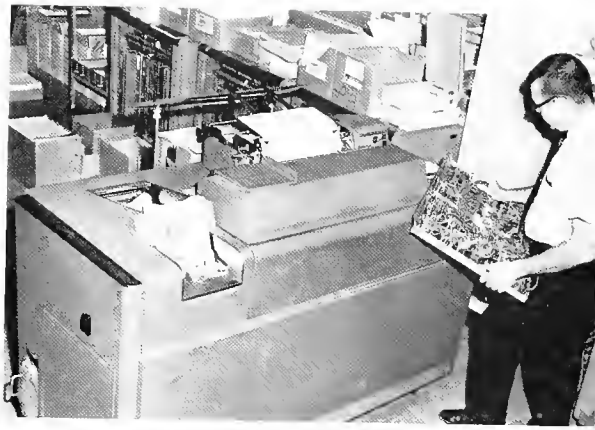
Principal Electronic Data Processing applications associated with all projects include the preparation of construction cost estimates, preparation of the proposal forms, verification of the contractors' bids, tabulation of bids, establishment of a price index for units of work, processing of contractors' monthly payments for work performed, and construction progress. In the field of planning, Electronic Data Processing is useful in connection with origin and destination surveys, traffic assignments, maintenance of road inventory data, location studies, completion of needs data including sufficiency ratings, traffic counts and accident studies.

Payroll applications include retirement fund payments, social-security payments, income tax withholdings and payroll distribution for cost accounting and Federal-aid billing. Equipment inventory usage and employees expense records are examples of control type applications.

In the Right-of-Way activity, Electronic Data Processing records are maintained with respect to the status of property acquisition by settlement, property review board determination, condemnations, expenditures, Federal reimbursement and other significant factors.

Thus it is apparent that although numerous programs are used for technical applications, many administrative uses also exist which cross departmental lines and result in an "integrated" concept of management, control and operations.

It is recognized that the use of Electronic Data Processing has resulted in a considerable monentary savings, but intangible benefits of major importance are also recognized - such as increased productivity, release of personnel from tedious routine for the performance of more significant tasks, more timely and therefore more meaningful reports, tighter controls, improved quality and economics in design, and expeditious billing for Federal-aid reimbursement.



EDP's - Interpreter Program Change
One of the EDP's personnel changes a "program" in an interpreter. The speed and accuracy of these machines and their operators is responsible for time-cost savings in other phases of road building and maintenance.

Above is Data Processing's major piece of equipment; the 1620 No. 2, a multi-purpose computer. It is one of the main factors in the section's success in fulfilling administrative functions.

OPEN ROADS

CLEAR, SAFE, BEAUTIFUL

A scene from one of Marylands roads in bygone years!

Traffic flows on uninterrupted, while improvements are being made to Liberty Road

Surface and sub-surface cracks are being filled prior to resurfacing, which has already been finished on the left side of the road

This is one of the 836 giant lamps which have been erected on the 16 miles of approach roads to the Baltimore Harbor Tunnel.

Maryland's highway network serves many needs including the extensions to all other transportation facilities - air, rail, and water - which are expedient to the economic growth and comfort of any area.

Proper maintenance of our system is necessary not only to the State but to the Nation as well, since our economy is dependent upon our highways.

Maintenance is an operation calling for competent training and sound judgement. Reliance on fixed rules and schedules alone will not do the job. Alertness and forethought at all times is necessary to protect the billions of dollars invested in the planning and construction of our highways. Keeping these roads open and in prime condition is of utmost importance to the SRC.

The Commission must maintain 5,017.90 miles of State highway system. Operations include snow and ice removal, surface and sub-surface patching and shoulder improvements, bridge painting and repairs, operation of draw bridges, resurfacing, preparing and posting traffic signs, and installation of automatic signals for traffic. To accomplish this, 3,530 vehicles or pieces of equipment and 2,048 personnel were employed last year.

The opening of the Capital Beltway is primarily responsible for the largest growth of new construction and maintenance equipment and vehicles since the inception of the SRC. Last year 529 new pieces of equipment, including replacements and additional items, were purchased to insure safe and uninterrupted highway travel.

The extensive use of the highway system for home to work travel and our dependence on the automobile is the spur which has prompted adaptation of an extensive winter weather "bare pavement" snow and ice removal program.

The erection and dismantling of snow fence, the preparation and the distribution of abrasive and melting materials in piles along the highway, and the over-hauling of snow and ice removal equipment are just some phases of normal winter maintenance.

More than 700 pieces of equipment are used in the snow-ice removal program. A constant vigil by SRC supervisors during the winter months and rapid de-

w removal crews encounter their greotest dif-lties in the Western portion of the Stote.

This is one of the States' primary roods open to traffic shortly ofter o snowstorm despite heavy drifting on the road surface.

A modern Marylond expressway in on embryonic stoge of growth, waiting for the builders' finol touch.

ote Systems like the Boltimore Beltway receives top priority under the Commissions' snow removal am.

Interstote 83, the Boltimore-Horrisburg Expressway, shows the finished effects of rood, londscoping, and safety design in modern freeway construction.

ployment of men and equipment by use of the modern communication system during times of unsafe road conditions have resulted in more than 6,625 lane miles of primary Maryland roads included in the "bare pavement" maintenance program.

One of the aspects of road building that has received increasing attention in the past several years is the profile of the terrain surrounding the road, and studies made by the SRC have included not only the beautification of areas in immediate proximity to the road, but also the addition of traffic safety features.

The Landscape Section developed specifications for more than 30,000 acres of vegetative maintenance last year including more than 1,000 acres of seeding on new construction. Because of the vastly expanded road building program successfully completed last year, 600 tons of fertilizer, (more than was used in the past ten years combined), was needed to nourish and maintain the accompanying property.

With the constant addition of more herbage, certain difficulties arise. Maintenance costs go up because of added man-power, equipment, and vegetation growth.

Difficult, expensive and sometimes hazardous maintenance difficulties were eliminated by the studied and carefully programmed use of growth inhibitors.

Another method used which helps reduce costs is vegetation drainage, or the use of inexpensive materials such as jute products, glass fiber, and plastics, which take the place of concrete and sod lining the drains.

Scientific used of varied species of grass has allowed use of steeper retaining walls. The most recent use of this method has been on the slopes of the approaches to the Assateague Island Bridge opened in September of 1964, where 80,000 beach grass plants were used in lieu of concrete, for slope protection.

These programs are just some of the many used to insure the highest standards of road improvement, general maintenance, and landscaping consistent with the needs of the State and the Nation, and in adherence to long-standing State Roads policy.

COMMUNICATIONS THE GUIDE TO EFFICIENCY

The main transmitter-receiver in Baltimore, shown above, reflects the high degree efficiency displayed by the Communicotions Section. The console, built by SRC technicians at a cost of $1,800 would have cost the State $23,000 if undertaken by a private concern.

A consistently dependable and numerically sufficient communication system is a modern necessity to any organization responsible for thousands of miles of road maintenance and construction; and with 565 vehicular, 30 stationary, and 15 battery-powered hand-carried radio units, the State Roads Commission not only upholds its own responsibilities, but also operates the largest non-Federal, non-law enforcement radio network in the State.

The mobile units in cars and trucks serve a variety of purposes. The snow removal plan would be rendered as helpless as the motorist it is designed to aid if there were no adequate two-way communications between supervisors and their road crews. Similarly, the traffic signal maintenance crews, truck weighing stations, the materials testing operations, and road construction crews have found their radios necessary items. Reporting on soil conditions, progress of projects, the requisition of additional material, and calling for medical or police assistance, are just some of the every-day uses to which the roads radios are put.

The SRC radio net maintains contact with the Maryland and Delaware State Police forces, the Delaware and Virginia Roads Commissions, the Bureau of Transit and Traffic in Baltimore and Washington and the Maryland Civil Defense headquarters. Teletype contact is also maintained with the U.S. Weather Bureau and with a private weather service which gives the Commission local weather information concerning specific areas.

To augment this service, district offices keep a twenty-four hour shift on duty for the winter months, to alert snow-removal crews rapidly in the event of a storm. The base network includes a microwave facility into Western Maryland which is shared with the Maryland State Police, and provides remote control of equipment at three mountain-top sites used by both agencies, as well as for point-to-point communications. SRC Communication Center Headquarters at Baltimore is open twenty-four hours all year long.

The SRC radios are kept in working order by eight FCC-licensed radio technicians and three radio mechanics, who operate from three regional shops located in Baltimore, Cumberland and Denton, in vehicles specially designed to serve as mobile repair shops. A fourth shop in Prince Frederick is due to be completed this year.

Needs for specialized items of communication equipment are filled by design, development and construction at the Baltimore Radio Shop.

Ten of the 39 stationary towers have a transmitter output power of 300 watts. Others vary from 30 to 100 watts, depending upon coverage requirements. Included among these is a trailer-mounted unit, complete with telescoping mast which can be raised to a height of fifty feet for use as a base at emergency or other temporary sites.

Placed on Savage Mountain for winter services each year, this SRC transmitter was put to good use in an air crash rescue operation in 1964.

Other duties of the Bureau include allocation and revision of telephone facilities, recording of transcripts of public hearings and other important meetings and the provision of public address systems for such functions as public hearings and road openings.

The Commission's Bureau of Communications has pioneered the use of pattern, or directional antennas, and has perfected a radio controlled median crossing gate which permits Commission maintenance vehicles to open them for emergency purposes prior to their arrival at the crossing site.

The Chief of the Bureau of Communications, Mr. Bruce McCallum, is active in the American Association of State Highway Officials as a member of a sub-committee conducting studies on the development of an electronic signaling device which would enable motorists to send out distress calls from their automobiles in the event of trouble on any limited access expressway.

TOLL FACILITIES

In the past two years, Maryland's five toll facilities, the Baltimore Harbor Tunnel - The Chesapeake Bay Bridge - the Potomac and Susquehanna River Bridges - and the John F. Kennedy Memorial Highway, have realized the largest traffic flow and resulting gross receipts than ever before in the State's history.

Gross receipts in 1964 for the Kennedy Memorial Highway at the barrier and ramps totaled $6,881,552.17, with a traffic count of 6,949,088 vehicles.

The other four facilities showed a combined traffic count of 36,509,943 vehicles, realizing $24,347,265.00 in toll collections.

Four of the projects are operated and maintained by the Commission through its Toll Facilities division. The John F. Kennedy Memorial Highway has a separate administrative staff because the road was built under a separate $74 million bond issue.

All facilities are operated and maintained solely from toll collections and miscellaneous incomes.

The Toll Division is staffed by 378 employees in the administrative, operational, maintenance, and accounting units for the facilities. Headquarters for the division is located in Baltimore. Administrative duties for the Kennedy Highway are performed at the toll gate plaza on the Highway, which employs 64 persons.

Routine operation and maintenance is directed by superintendents on the various toll sites, and special maintenance requirements are met by interproject transfer of manpower and equipment when necessary.

In 1964, the Harbor Tunnel showed the largest increase of any facility, averaging more than 45,000 vehicles a day.

Studies show that an increase of traffic can be expected in the near future. In order to accommodate millions of motorists flowing in and out of Baltimore, the necessity for the development of additional facilities which would connect with other proposed expressway routes of Greater Baltimore was called to the attention of the Committee on Highways of the Legislative Council.

The three bridge facilities as well as the Harbor Tunnel are patrolled 24 hours a day by Division personnel. In addition to personnel required to patrol the interior of the facility, Harbor Tunnel requirements necessitate employment of a force whose duties include patrolling of extensive approaches to the Tunnel.

The Kennedy Memorial Highway is patrolled by a detachment of 41 State Police personnel at a cost of $350,000 a year, provided for in the State budget. In 1964, patrol vehicles from all five facilities logged 2.8 million miles in the execution of their duties.

The Baltimore Harbor Tunnel saw an average of 45,000 vehicles a day pass through its expanse last year.

The services that Maryland's toll facilities offer motorists has fully justified the $273 million cost of construction of the five facilities. Rendering of even greater service is anticipated by the State Roads Commission upon completion of future road building programs.

UTILITIES LIASON

New highways bring new growth to the areas which they serve. Among the many necessary items which any community needs, are the construction of new highways and the reconstructing of existing highways requiring the adjustment of utilities which serve the area, including proper water and gas lines, sewage disposal systems, and electric power and telephone communications.

In 1961, with the endorsement of Governor J. Millard Tawes and under the direction of John B. Funk, the SRC inaugurated a liaison program with utilities companies and local civic governments who provide the public with these necessities.

Since that time, Maryland has been acclaimed by the American Right-of-Way Association as one of the foremost proponents of such a program.

The program is conducted in this manner:

The SRC holds annual regional conferences with utilities companies and local governments so that they in turn may make the necessary provisions in their construction programs to meet present and future needs.

Companies owning trans-continental gas and fuel pipe lines, extending from Texas to Maryland and States further north, are also apprised of the Commission's future roads projects.

Through this system, the necessary utilities adjustments are incorporated with the SRC's building program, eliminating unnecessary construction delay for the removal of sub-surface lines, or the relocation of exterior appurtenances.

Through this and similar programs, the SRC continues to serve residents and users of our Free-State highway and expressway systems.

Adequate planning prior to construction of this road has resulted in uninterrupted service during installation of additional lines.

CONSTRUCTION MATERIALS

Their Development and Testing

One of the more important activities carried on by the Commission in its job of building and maintaining Maryland's road system is the constant search for better products, equipment and construction methods.

Its responsibilities include conducting physical research, evaluation of pavement design, development of quality control standards and the routing testing of materials as they are used in construction.

This is the duty of the Bureau of Materials and Research Testing, an arm of the Commission's Engineering Division.

Most of this activity is carried on at the Commission's central laboratory at Brooklandville, just North of Baltimore. This new building, designed to meet the needs of ever expanding requirements for testing, was opened in August, 1963. It is a modern, two-story building completed at a cost of $1.7 million.

Here all new products as developed by manufacturers are submitted for exhaustive analysis before they are approved as suitable to meet Maryland's strict requirements. Here, also, tests and recommendations are made on any new equipment prior to acquisition by the State Roads.

At the lab, continuous research is conducted to expedite the testing and reporting on all materials which are used in the field.

With the increased emphasis on quality control, the Bureau has established many specifications for construction of better highways. This is accomplished by the development of new tests and the creation of more detailed inspection and certification.

The Bureau also participates in the engineering designs for new roads and fixes proper requirements for foundations and pavements by recommending pavement design, slopes and use of native materials.

These recommendations are developed from elaborate soils testing procedures in the area where a new road is to be built, and from test borings made of the various soils in the prospective location.

During the period of construction, constant on-the-job inspection is maintained. Some tests can be made on the spot by trained personnel, but many must be referred to the laboratory to insure adherence to specifications.

To facilitate work schedules and reduce delay, regional labs were constructed in Easton in 1961 to aid the Eastern Shore, and in Hancock in 1962 to service the Western Maryland area.

The central laboratory presently carries out routing testing for central Maryland, but another regional facility, at Greenbelt, has been planned for the Washington and Southern Maryland areas. In addition, Bureau officials hope to add a mobile unit in the near future to assist the more isolated sections of the State.

Services of the Bureau are often sought by counties or municipalities which are not sufficiently equipped themselves to handle preliminary testing work. In these instances the Commission 's soil testing facilities are made readily available on a reimbursable cost basis to the local subdivision.

In the future, as the need for better and more economical highways increase, the services of this vital Commission function will become even more valuable.

A technician is conducting a test an a product being considered for us by the SRC.

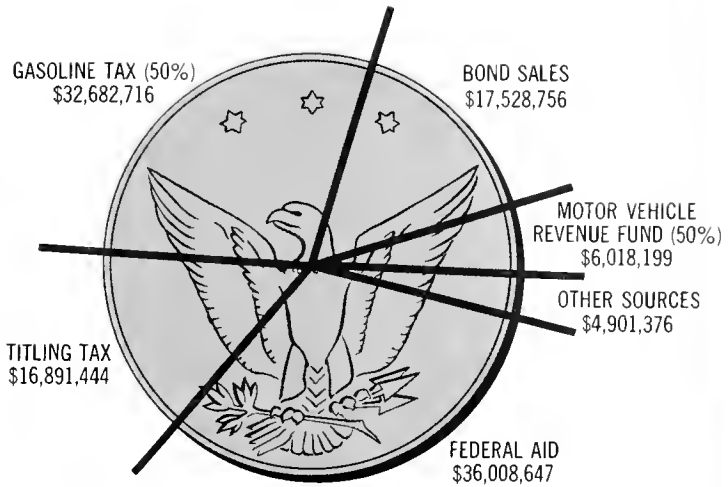
This is a laboratory technician determining the reflectorizing cha acteristics of weathered traffic paint.

This is a crew taking a test boring sample an the site of a futu Maryland road

Property of Maryla
College Park, Md

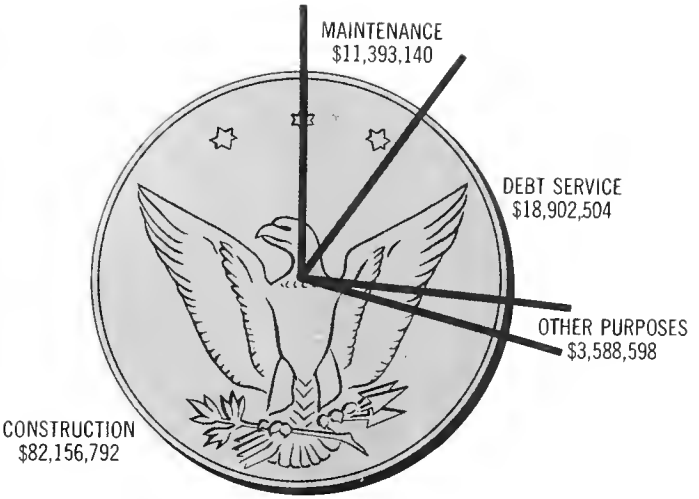
THE HIGHWAY DOLLAR

WHERE IT CAME FROM



Total—$114,031,140

WHERE IT WENT



Total—$116,041,035 *

FISCAL YEAR—1964

DO NOT CIRCULATE

* The difference between receipts and disbursements is represented by the difference between the opening cash balance and the closing cash balance.

UNIV OF MD COLLEGE PARK

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DO NOT CIRCULATE